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July 1, 2014

**VIA HAND DELIVERY**

Jean D. Jewell, Secretary  
Idaho Public Utilities Commission  
472 West Washington Street  
Boise, Idaho 83702

Re: Case No. IPC-E-14-18  
Solar Integration Rates and Charges – Idaho Power Company's Application  
and Testimony

Dear Ms. Jewell:

Enclosed for filing in the above matter please find an original and seven (7) copies of Idaho Power Company's Application.

Also enclosed for filing are nine (9) copies each of the Direct Testimony of Philip B. DeVol and Michael J. Youngblood. One copy of each of the aforementioned testimonies has been designated as the "Reporter's Copy." In addition, a disk containing Word versions of Mr. DeVol's and Mr. Youngblood's testimonies is enclosed for the Reporter.

If you have any questions about the enclosed documents, please do not hesitate to contact me.

Very truly yours,

Donovan E. Walker

DEW:csb  
Enclosures

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Attorney for Idaho Power Company

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION	)	
OF IDAHO POWER COMPANY TO	)	CASE NO. IPC-E-14-18
IMPLEMENT SOLAR INTEGRATION	)	
RATES AND CHARGES.	)	APPLICATION
	)	

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In accordance with RP 052, Idaho Power Company ("Idaho Power" or "Company") hereby respectfully requests the Idaho Public Utilities Commission ("Commission") authorize Idaho Power to implement solar integration rates and charges consistent with its 2014 solar integration study ("Study" or "Solar Study").

In support of this Application, Idaho Power represents as follows:

**I. INTRODUCTION**

1. Due to the variable and intermittent nature of solar generation, Idaho Power must modify its system operations to successfully integrate solar power without impacting system reliability, similar to wind generation. Idaho Power, or any electrical system operator, must provide operating reserves from resources that are capable of

increasing or decreasing dispatchable generation on short notice to offset changes in non-dispatchable solar generation. The effect of having to hold operating reserves on dispatchable resources is that the use of those resources is restricted and they cannot be economically dispatched to their fullest capability. This results in higher power supply costs that are subsequently passed on to customers.

2. Idaho Power is currently experiencing very high interest by, and rapid growth of, solar generation projects wishing to contract with and locate on Idaho Power's system. Idaho Power has recently signed six new Public Utility Regulatory Policies Act of 1978 ("PURPA") solar contracts for 60 megawatts ("MW") of solar generation in its Oregon service territory. Idaho Power is currently negotiating, and nearing final agreements, for an additional 120 MW of solar projects in Idaho, one for 80 MW and one for 40 MW PURPA. Idaho Power has an additional 260 MW of proposed PURPA solar projects seeking pricing and contracts. Case No. IPC-E-14-09 and the Direct Testimony of Randy Allphin filed in that case provides additional details regarding the current status of requests for PURPA contracts from solar developers. In addition, Idaho Power has seen rapid growth of PURPA wind generation that has been integrated onto its system. Idaho Power currently has a total of 678 MW of wind generation capacity currently operating on its system; 505 MW of this wind generation capacity has been added to Idaho Power's system during 2010, 2011, and 2012. As set forth in Case No. IPC-E-13-22, this rapid growth has led to the recognition that Idaho Power's finite capability for integrating variable and intermittent generation is nearing its limit. Even at the current level of wind generation capacity penetration, dispatchable thermal and hydro generators are not always capable of providing the balancing reserves

necessary to integrate variable generation. This situation is expected to worsen as wind and solar penetration levels increase, particularly during periods of low customer demand.

3. The costs associated with solar integration are specific and unique for each individual electrical system based on the amount of solar generation being integrated and the other types of resources that are used to provide the necessary operating reserves. In general terms, the cost of integrating solar generation increases as the amount of nameplate solar generation on the electrical system increases. Failure to calculate and properly allocate solar integration costs to solar PURPA generators when calculating avoided cost rates impermissibly pushes those costs onto utility customers, making them no longer indifferent to whether the generation was provided by a PURPA qualifying facility or otherwise generated or acquired by the Company.

## **II. 2014 SOLAR INTEGRATION STUDY AND REPORT**

4. In support of its Application requesting the Commission to implement solar integration charges, Idaho Power presents its current Solar Integration Study Report ("Study Report") as Exhibit No. 1 to the Direct Testimony of Philip B. DeVol, filed contemporaneously with this Application. The Study Report was completed on June 16, 2014, and filed with the Commission on June 17, 2014, in Case No. IPC-E-14-09.

5. As described in Mr. DeVol's Testimony, the Solar Study determined solar integration costs for four solar build-out scenarios at installed capacities of 100 megawatts ("MW"), 300 MW, 500 MW, and 700 MW. The Study utilized geographically dispersed build-out scenarios with solar generation located across the Company's

service territory at Parma, Boise, Grand View, Twin Falls, Picabo, and Aberdeen. Pages 6 and 7 of the Study Report provide additional information regarding the build-out scenarios. The Company initiated the Study with the formation of a Technical Review Committee (“TRC”), with the purpose of providing input, review, and guidance for the Study. In collaboration with the TRC, the Study Report shows the solar integration costs as indicated on the following table:

**Average Integration Cost Per MWh  
(2014 cost and dollars)**

Build-out Scenarios	0-100 MW	0-300 MW	0-500 MW	0-700 MW
Integration Cost	\$0.40	\$1.20	\$1.80	\$2.50

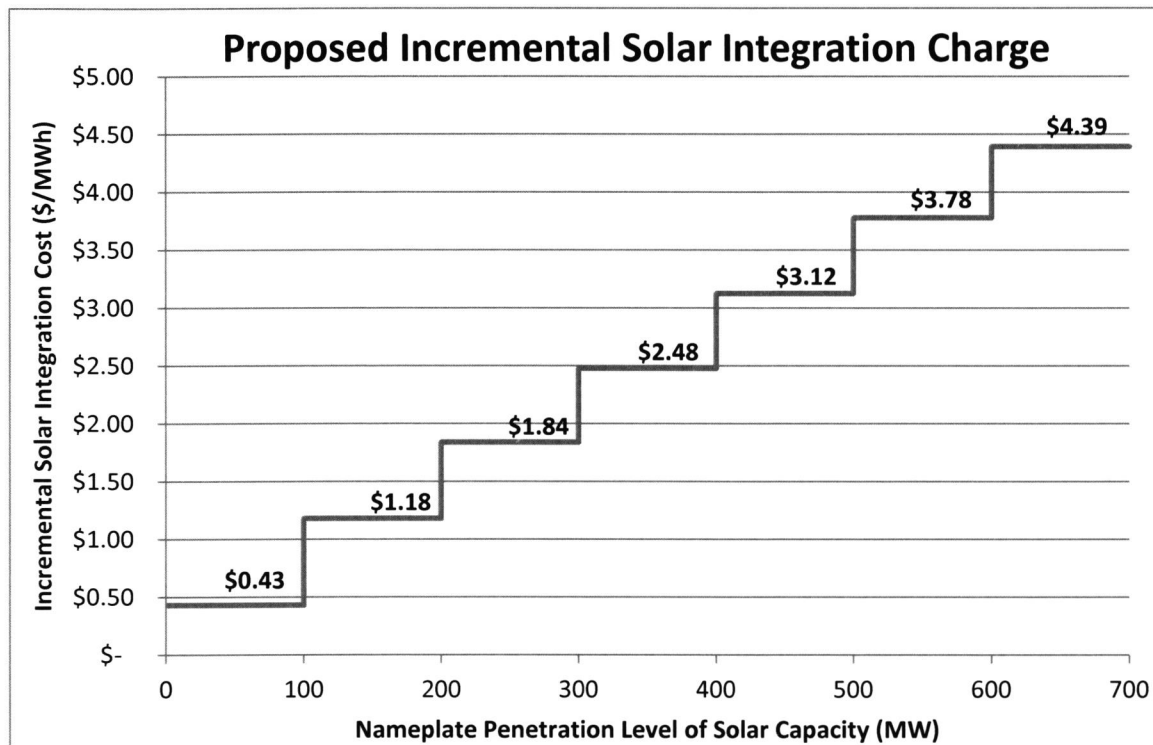
**Incremental Integration Cost Per MWh  
(2014 cost and dollars)**

Penetration Level	0-100 MW	100-300 MW	300-500 MW	500-700 MW
Integration Cost	\$0.40	\$1.50	\$2.80	\$4.40

### **III. IMPLEMENTATION OF SOLAR INTEGRATION CHARGES**

6. The Direct Testimony of Michael J. Youngblood, filed contemporaneously with this Application, sets forth the Company’s request and proposal to implement solar integration rates and charges based upon the costs identified in the Solar Study. Idaho Power proposes that a solar integration charge be established to collect the incremental cost of integration at each 100 MW of solar generation penetration. Because there are currently no solar projects paying an integration charge on Idaho Power’s system, under this proposal, the solar integration charge simply starts at zero and increases consistent with the costs of integration identified in the Solar Study, at every 100 MW of solar nameplate capacity penetration level. The proposed solar integration charges are rounded to the nearest penny and are illustrated in the following graph:





7. Idaho Power proposes that the above solar integration costs be set forth in a tariff schedule, Schedule 87, Variable Generation Integration Charges. Similar to what the Company submitted and will request for the cost recovery of wind integration costs, Idaho Power recommends that the Commission allocate costs on a per megawatt-hour basis for incremental levels of solar penetration, not on a percentage of avoided cost rate basis, like what was done for the initial wind integration charge. Idaho Power also proposes that both wind and solar integration charges are set forth in a tariff schedule, specifically established for intermittent generation integration charges.

8. Exhibit No. 2 to the Direct Testimony of Michael J. Youngblood contains a draft Schedule 87. Schedule 87 is meant to provide the wind and solar integration charges consistent with the most recent Commission-approved integration study applicable to both wind and solar generation. The draft of Schedule 87 submitted as Exhibit No. 2 contains only the proposed incremental integration charges for solar

generation based upon the Study. It also contains a placeholder for the inclusion of the appropriate wind integration charges, once they are determined by the Commission. The charges set forth in Schedule 87 are the amounts to be deducted from avoided cost rates each year, beginning in the year the project comes on-line, based on the nameplate capacity of installed solar generation at the scheduled operation date of the proposed project. The integration charges set forth in Schedule 87 are formatted to appear in the same format as that used by the Commission to post the published avoided cost rates. Each penetration level (each 100 MW increment) has its own table clearly identified and set forth in Schedule 87, and discloses both the levelized integration charge as well as the non-levelized stream of integration charge amounts listed by year. Just like published avoided cost rates, the scheduled operation date for the proposed generation project is used as the starting point in the table, and each yearly amount through the term of the proposed contract is set out accordingly.

#### **IV. MODIFIED PROCEDURE**

9. Idaho Power believes that a technical hearing is not necessary to consider the issues presented herein and respectfully requests that this Application be processed under Modified Procedure; i.e., by written submissions rather than by hearing. RP 201 *et seq.* Idaho Power has contemporaneously filed Direct Testimony of Philip B. DeVol and Michael J. Youngblood in support of this Application. Should the Commission determine that a technical hearing is required, the Company stands ready to present the testimony at hearing in support of this Application.

## **V. COMMUNICATIONS AND SERVICE OF PLEADINGS**

10. Communications and service of pleadings with reference to this

Application should be sent to the following:

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Regulatory Dockets  
Idaho Power Company  
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Michael J. Youngblood  
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## **VI. REQUEST FOR RELIEF**

11. As described in greater detail above, Idaho Power respectfully requests that the Commission issue an order approving the Company's proposed implementation of solar integration rates and charges as set forth in the proposed Schedule 87, Variable Generation Integration Charges, as indicated by the Solar Study presented herewith, effective as of August 1, 2014.

DATED at Boise, Idaho, this 1<sup>st</sup> day of July 2014.

  
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DONOVAN E. WALKER  
Attorney for Idaho Power Company